

From: [Chau-Wai Wong](#)
To: [aipartnership](#)
Subject: Comments on patenting AI inventions (84 FR 44889)
Date: Friday, August 30, 2019 7:21:49 PM

Hi there,

Below are my comments.

Regards,
Chau-Wai Wong

2. What are the different ways that a natural person can contribute to conception of an AI invention and be eligible to be a named inventor?

"running the AI algorithm on the data and obtaining the results" should not be counted as contribution unless such results altered the design of the algorithms.

Another important contribution beyond designing an algorithm is to make/propose a mathematical model such that an algorithm can be readily derived from. Or put in another way, the difficulty is in designing the math model and the algorithm is a by-product of the math model.

4. Should an entity or entities other than a natural person, or company to which a natural person assigns an invention, be able to own a patent on the AI invention?

No. A contribution can always be credited to a certain person. If we open the door for companies to get credits, very quickly names of true inventors are going to disappear for one reason or another. This will jeopardize the willingness of people to invent.

Big companies such as Google and Microsoft do have contributions in providing computational resources. However, corporations are not the root of inventions. Clever and hardworking minds are.

5. Are there any patent eligibility considerations unique to AI inventions?

Many AI or more precisely, machine learning systems, are highly similar following the same math principle but are slightly different in connections of the network. They perform significantly different. Here, novelty (by the definition in the academia) is not that much but the performance improvement makes a big difference. I believe, regardless of the technicality of the patent laws, we should consider the performance of a typical system that can be realized from the description as an important criterion in patent application assessment. We also need to have peer-reviewed / independent body reviewed evidence to support the performance claim in patent applications.

6. Are there any disclosure-related considerations unique to AI inventions?

Yes, cleaned-up source code or trained model should be publicly (not necessarily free),

permanently available for peer-review and authorized use.

7. How can patent applications for AI inventions best comply with the enablement requirement, particularly given the degree of unpredictability of certain AI systems?

Trained neural network structures should be available publicly in lieu of the details shown in the description. It is actually impossible to show all the weight numbers in the printed text.